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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,608	11/29/2001	Qi Xu	1436/149	7384

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EXAMINER	
BAYERL, RAYMOND J	

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/997,608	XU ET AL.	
	Examiner	Art Unit	
	Raymond J. Bayerl	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 - 51 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 - 51 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 12 February 2002 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "108" has been used to designate both an Ethernet switch and a system manager component, fig 2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

The parent of claim 4, listed as "claim 4", renders uncertain the actual scope of this "method" claim. Might applicant have meant claim 3 as the parent? This has been presumed, in the interest of expediting prosecution.

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 43 – 49 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

These claims are drafted in the form of "A computer program product having computer code thereon for operation of a computer", with the limitations being solely "computer code". Such claims are directed to a computer program *per se*, and do not qualify under the 4 statutory classes of process, machine, manufacture or composition

of matter. The claims, for example, are not positively recited as being tangibly fixed in a machine readable medium.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1 – 9, 14 – 15, 17 – 22, 27 – 30, 32 – 35, 40 – 41, 43 – 44, 49 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Focus Highlight for World Wide Web Frames", IBM TDB 40:11, pp 89 – 90 ("IBM"), in view of Satterfield et al. ("Satterfield"; US #6,564,378 B1) and Bates et al. ("Bates"; US #6,727,929 B1).

As per independent claim 1's "selecting a proximate frame of a web page" (see also independent claim 32), in which a "nearest frame" is selected "as the proximate frame" based upon "a directional command", it is initially noted that IBM's 1997 disclosure is to provide a visual indicator of input focus in web pages using frames. IBM

uses a focus indication for the frame which has input focus. In IBM is the implicit suggestion that the user must be afforded some mechanism for moving the input focus among the frames.

However, it was well-known in the art of interactive navigational interfaces at the time of applicant's invention to use remote control cursor keys to position the highlight region, as seen in Satterfield (Abstract, figs 5 – 10). In entering the change via Satterfield, a "frame nearest the first position" will ordinarily be selected, though Satterfield has no **explicit** disclosure of "determining the location...of each frame", after "knowing a first position within a frame".

But still further, it was also known in the art to use relative locations of on-screen regions to interpret the intentions of directional user input, as is found in Bates. There, the original position and the motion of the cursor/arrow are recorded, and If the motion is inconsistent with the first controller associated with the original position...a next controller is selected and evaluated (Abstract, fig 3). In Bates, The process is repeated until a controller within a threshold distance...accepts the motion as being consistent with its functions. Thus, Bates teaches that relative position is the basis for selecting a next position for a focus.

It would therefore have been obvious to a person having ordinary skill in the art at the time of applicant's invention to move an IBM input focus using directional keys as per Satterfield, and further determining the next focus location using distance as per Bates, the motivation being to provide a more accurate translation of user input into useful results in "frame" selection.

As noted previously, Satterfield uses cursor keys (claim 2's "directional keypad"; claim 4's "directional keys"; see also claims 18, 20) on a remote control (claim 3's "remote control"; see also claims 19). This facility is provided in Satterfield for "a cable television environment" with processes on "a server remote from a cable television set-top box" (claims 5, 21, 44).

Regarding claim 6's "iteratively" "determining the nearest frame" (see also claim 33), it has also been noted above that Bates's process is repeated until a controller...accepts the motion. In the Bates procedure, "location boundaries for each frame" must be taken into account (claims 7, 34).

In the basic IBM input focus disclosure, "an active link is located at the first position" (claims 8, 22), this being "within one of a plurality of frames" (claim 9). Then, the IBM display "is altered to indicate that the proximate frame is an active frame" (claims 30, 50)

The "left, right, up or down" "directional command" (claims 14, 27, 40) reads directly upon the use of cursor keys on Satterfield's remote control. Then, in using the repeated search of Bates, it is suggested "to see if there is a link within a predetermined vertical increment in the direction of the directional command" (claims 15, 28, 41)—Bates's teaching is of finding likely candidate controller regions, given cursor input movement, and the search is constrained by the directions indicated by that movement to such a range.

Independent claim 17 is similar to claim 1, in that "navigating between frames of a web page" is enabled, this being also the objective in IBM. The receipt of a

"directional command signal" is found in Satterfield, and the use of "frame position" and "distance", as noted above, is part of Bates. A similar line of reasoning applies to independent claims 29, 43, 49.

9. Claims 10 – 13, 16, 23 – 26, 31, 36 – 39, 42, 45 – 48, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM in view of Satterfield, Bates and Pierre Cote et al. ("Pierre Cote"; US #2003/0196174 A1).

While the IBM interface when configured to accept Satterfield's directional inputs and Bates's distance calculations is sufficient to navigate web page frames, the additional details such as "determining the position of all links within the proximate frame" (claims 10, 23, 36, 45) or "all navigable links within the proximate frame" (claims 11, 24, 37, 46) are not **explicitly** taught.

However, Pierre Cote amply illustrates the NAVIGATION OF **HYPERLINKS** VIA TABS, whereby A user may discover and navigate among hyperlinks through the use of a keyboard (Abstract). As seen, for example, in Pierre Cote's fig 5B, the focus may be shifted on the basis of individual hyperlinks, by using keyboard input.

Thus, it would also have been obvious to the person having ordinary skill in the art to locate hyperlinks internal to an IBM frame, using the Satterfield direction keys and the Bates distance calculation, the motivation being to direct the user more precisely to the resources being sought on an initial screen such as IBM's.

In applying Bates within the context of the Pierre Cote hyperlink screen, "determining a navigable link which is closest to the first position" (claims 12, 25, 38, 47) will then occur, and according to the suggestion of IBM, "setting the closest link as the

active link" (claims 13, 26, 39, 48) will then take place. At such time, the "web page is altered to visually indicate the active link" (claims 31, 51).

To produce an effect on the hyperlink level as per Pierre Cote, a process of "enumerating all links within the proximate frame" must also take place (claims 16, 42), so that "which navigable link is closest to the first position" may be evaluated, using distance determination as per Bates.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining US Patent documents made of record are generally related to the operation of an input focus control relative to an interactive region.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond J. Bayerl whose telephone number is (703) 305-9789. The examiner can normally be reached on M - F from 10:00 AM to 5:00 PM.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (703) 308-3116. All patent application related correspondence transmitted by FAX **must be directed** to the central FAX number (703) 872-9306.

13. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173
23 August 2004